

REMARKS

Claims 1-2, 6, 8-9, 11, and 16 are amended, no claims are canceled, and no claims are added; as a result, claims 1-20 are now pending in this application.

No new matter has been added through the amendments to claims 1-2, 6, 8-9, 11, and 16. Support for the amendments to claims 1-2, 6, 11, and 16 is found throughout the specification, including but not limited to the specification at page 3, line 10 through page 5, line 12, at page 6, line 17 through page 7, line 2, and at page 9, lines 3-17. Claims 8 and 9 were amended merely to delete a comma from each claim.

§101 Rejection of the Claims

Claims 6-15 were rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Applicants respectfully traverse the rejection of claims 6-15.

Applicants have amended independent claims 6 and 11 along the lines suggested in the Office Action, and believe that independent claims 6 and 11, at least as now amended, include statutory subject matter under 35 U.S.C. § 101. By way of illustration, independent claims 6 and 11, as now amended each include,

displaying in succession the blended and shifted textures as applied to the graphical user object to create the illusion of motion.

Claims 7-10 depend from independent claim 6, and so include all of the subject matter of independent claim 6, and more. Claims 12-15 depend from independent claim 11, and so include all of the subject matter included in independent claim 11, and more. For at least the reasons stated above with respect to independent claims 6 and 11, claims 7-10 and 12-15 include statutory subject matter under 35 U.S.C. § 101.

Applicants respectfully request reconsideration and withdrawal of the rejection, and allowance of claims 6-15.

§103 Rejection of the ClaimsClaims 1-3, 5, and 16.

Claims 1-3, 5, and 16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Deering (U.S. 6,956,576) in view of Lengyel ("Rendering with Coherent Layers") in further view of Becker (U.S. 6,392,675) and Morgan (U.S. 6,756,989). Applicants respectfully traverse the rejection of claims 1-3, 5, and 16.

Claims 1-3, 5, and 16 are not obvious in view of the proposed combination of Deering, Lengyel, Becker, and Morgan¹ because the proposed combination of Deering, Lengyel, Becker, and Morgan fails to disclose or suggest all of the subject matter included in claims 1-3, 5, and 16. By way of illustration, independent claim 1 as now amended includes,

generating a plurality of blurred copies of an object by applying multi-texturing to each of a series of objects during one pass through a graphics processing pipeline, including acquiring the series of objects, and for each of the objects in the series, generate at least one texture that is mapped to the object, shift the texture outside the perimeter of the object along a path of travel of the series of objects to generate at least one shifted texture for the object, and blend the at least one shifted texture with the object to which the texture is mapped to form a blurred copy of the object; and

displaying in succession each one of the generated plurality of blurred copies of the object to create the illusion of motion.

In contrast to independent claim 1, Deering concerns motion blur using sample masks.²

For example, Deering states,³

The object to be blurred is drawn in a slightly different position for each of the four times it is drawn per frame. Once the object has been drawn the specified number of times, the filtering or convolution function may be performed to generate output pixels. This is indicated in the figure by filter radius 502. As the figure illustrates, the filter selects samples that fall within the filter radius regardless of the samples' rendering time. Thus, samples representing the object in each of its different positions are "blended" to result in a motion blurred output pixel.

¹ Applicants do not admit or agree that any combination or combinations of Deering, Lengyel, Becker, and Morgan are possible.

² See Deering at column 29, line 55.

³ See Deering at column 30, lines 9-18.

Thus, Deering concerns drawing an object to be blurred a specific number of times in slightly different positions. However, Deering fails to disclose or suggest, "applying multi-texturing to each of a series of objects during one pass through a graphics processing pipeline," as required by independent claim 1.

Further, there is no disclosure or suggestion in Deering of the subject matter of independent claim 1 including,

generate at least one texture that is mapped to the object, shift the texture outside the perimeter of the object along a path of travel of the series of objects to generate at least one shifted texture for the object, and blend the at least one shifted texture with the object to which the texture is mapped to form a blurred copy of the object.

The Office Action admits as much in stating,⁴ "Nonetheless Deering fails to explicitly teach objects blended to give the illusion of motion are associated with texture."

Instead, the Office Action relies on Lengyel as discussing texture. However, and in contrast to independent claim 1, section 2.3 of Lengyel concerns "Factoring Shading," section 3.4 of Lengyel concerns "Spatial Resolution," and Fig. 6 of Lengyel et al. concerns "Shade sprites are combined in the final composition phase to produce the multipass rendering." These sections of Lengyel fail to disclose or suggest, "applying multi-texturing to each of a series of objects during one pass through a graphics processing pipeline," as required by independent claim 1.

Further, Lengyel fails to disclose or suggest the subject matter of independent claim 1, namely,

acquiring the series of objects, and for each of the objects in the series, generate at least one texture that is mapped to the object, shift the texture outside the perimeter of the object along a path of travel of the series of objects to generate at least one shifted texture for the object, and blend the at least one shifted texture with the object to which the texture is mapped to form a blurred copy of the object.

Applicants' representatives fail to find in either Becker or in Morgan, and the Office Action fails to point out in either Becker or in Morgan, a disclosure or suggestion of that subject

⁴ See the Office Action at page 3, lines 18-19.

matter quoted above, which is included in independent claim 1 and missing from both Deering and Lengyel. Therefore, the proposed combination Deering, Lengyel, Becker, and Morgan fails to disclose or suggest all of the subject matter included in independent claim 1, and so independent claim 1 is not obvious in view of the proposed combination of Deering, Lengyel, Becker, and Morgan.

In a further illustration of subject matter included in claims 1-3, 5, and 16, and neither disclosed nor suggested by the proposed combination of Deering, Lengyel, Becker, and Morgan, independent claim 16 as now amended includes,

a texture memory in which to store texture information; and
a graphics processor coupled to the texture memory, the
graphics processor to process the texture information by shifting
and blending the texture information in one pass through the
graphics processor to obtain shifted and blended texture
information before applying the shifted and blended texture
information to each of a series of objects, wherein each successive
instance of the object to which the shifted and blended texture is
applied is reduced in size to simulate the effect of moving from a
front of a viewing space to a rear of the viewing space when the
successive instance of the object are viewed in succession.

For reasons analogous to those stated above with respect to independent claim 1, the proposed combination of Deering, Lengyel, Becker, and Morgan fails to disclose or suggest all of the subject matter included in independent claim 16.

Further, independent claim 16 also includes, "wherein each successive instance of the object to which the shifted and blended texture is applied is reduced in size to simulate the effect of moving from a front of a viewing space to a rear of a viewing space when the successive instance of the object are viewed in succession." Applicants respectfully submit that at least this subject matter as included in independent claim 16 is neither disclosed nor suggested by the proposed combination of Deering, Lengyel, Becker, and Morgan.

Applicants respectfully request reconsideration and withdrawal of the rejection, and allowance of claims 1-3, 5, and 16.

Claim 4.

Claim 4 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Deering (U.S. 6,956,576) in view of Lengyel ("Rendering with Coherent Layers") and Becker (U.S. 6,392,675) in further view of Morgan (U.S. 6,756,989) and Kato (U.S. 5,999,185). Applicants respectfully traverse the rejection of claim 4.

Claim 4 depends from independent claim 1, and so includes all of the subject matter included in independent claim 1, and more. For at least the reasons stated above with respect to independent claim 1, the proposed combination of Deering, Lengyel, Becker, and Morgan fails to disclose or suggest all of the subject matter included in claim 4.

Applicants' representatives fail to find in, and the Office Action fails to point out, where in Kato there is a disclosure or suggestion of the subject matter included in claim 4 and missing from the proposed combination of Deering, Lengyel, Becker, and Morgan. Thus, the proposed combination of Deering, Lengyel, Becker, Morgan, and Kato⁵ fails to disclose or suggest all of the subject matter included in claim 4, and so claim 4 is not obvious in view of the proposed combination of Deering, Lengyel, Becker, Morgan, and Kato.

Applicants respectfully request reconsideration and withdrawal of the rejection, and allowance of claim 4.

Claims 17-18 and 20.

Claims 17-18 and 20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Deering (U.S. 6,956,576) in view of Lengyel ("Rendering with Coherent Layers") and Becker (U.S. 6,392,675) in further view of Morgan (U.S. 6,756,989) and Kawahara (US 2005/0204306). Applicants respectfully traverse the rejection of claims 17-18 and 20.

Claims 17-18 and 20 depend from independent claim 16, and so include all of the subject matter included in independent claim 16, and more. For at least the reasons stated above with respect to independent claim 16, the proposed combination of Deering, Lengyel, Becker, and Morgan fails to disclose or suggest all of the subject matter included in claims 17-18 and 20.

Applicants' representatives fail to find in, and the Office Action fails to point out, where in Kawahara there is a disclosure or suggestion of the subject matter included in claims 17-18 and 20 and missing from the proposed combination of Deering, Lengyel, Becker, Morgan. Thus,

⁵ Applicants do not admit or agree that any combination or combinations of Deering, Lengyel, Becker, Morgan, and Kato are possible.

the proposed combination of Deering, Lengyel, Becker, Morgan, and Kawahara⁶ fails to disclose or suggest all of the subject matter included in claims 17-18 and 20, and so claims 17-18 and 20 are not obvious in view of the proposed combination of Deering, Lengyel, Becker, Morgan, and Kawahara.

Applicants respectfully request reconsideration and withdrawal of the rejection, and allowance of claims 17-18 and 20.

Reservation of Rights

In the interest of clarity and brevity, Applicants may not have addressed every assertion made in the Office Action. Applicants' silence regarding any such assertion does not constitute any admission or acquiescence. Applicants reserve all rights not exercised in connection with this response, such as the right to challenge or rebut any tacit or explicit characterization of any reference or of any of the present claims, the right to challenge or rebut any asserted factual or legal basis of any of the rejections, the right to swear behind any cited reference such as provided under 37 C.F.R. § 1.131 or otherwise, or the right to assert co-ownership of any cited reference. Applicants do not admit that any of the cited references or any other references of record are relevant to the present claims, or that they constitute prior art. To the extent that any rejection or assertion is based upon the Examiner's personal knowledge, rather than any objective evidence of record as manifested by a cited prior art reference, Applicants timely object to such reliance on Official Notice, and reserve all rights to request that the Examiner provide a reference or affidavit in support of such assertion, as required by MPEP § 2144.03. Applicants reserve all rights to pursue any cancelled claims in a subsequent patent application claiming the benefit of priority of the present patent application, and to request rejoinder of any withdrawn claim, as required by MPEP § 821.04.

⁶ Applicants do not admit or agree that any combination or combinations of Deering, Lengyel, Becker, Morgan, and Kawahara are possible.

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

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CONCLUSION

Applicants respectfully submit that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicants' attorney (612-371-2132) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

BRENT S. BAXTER ET AL.

By their Representatives,
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
P.O. Box 2938
Minneapolis, Minnesota 55402
612-371-2132

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By *Robert B. Madden*
Robert B. Madden
Reg. No. 57,521